repeatedly sending the sequence of codewords as an answer tone signal from an answering modem to an originating modem, as part of a training sequence to initiate communication between the answering modem and the originating modem.

57. (New) A method comprising:

generating a sequence of expected sample values by applying an algorithm comprising

$$X_k = Round\left\{scl \times \sqrt{2} \times \cos(2\pi k \times 79/301 + 0.25 \times \pi/301) + 0.5\right\}, \text{ wherein } k= 0, 1, 2, \ldots, 300, \text{ and}$$

wherein *scl* is a scaling value;

receiving at an originating modem a sequence of incoming codewords that represent an answer tone signal transmitted from an answering modem;

decoding the incoming codewords of the sequence so as to produce a sequence of incoming sample values; and

determining whether the incoming sample values are close enough to the expected sample values that a training sequence between the originating modem and the answering modem could be shortened.

58. (New) A method comprising:

generating a sequence of expected sample values by applying an algorithm comprising

$$X_k = Round\left\{scl \times \sqrt{2} \times \cos(2\pi k \times 79/301 + 0.25 \times \pi/301) + 0.5\right\}, \text{ wherein } k= 0, 1, 2, \ldots, 300, \text{ and}$$

wherein *scl* is a scaling value;

encoding the expected sample values to produce expected codewords;

receiving at an originating modem a sequence of incoming codewords that represent an answer tone signal transmitted from an answering modem; and
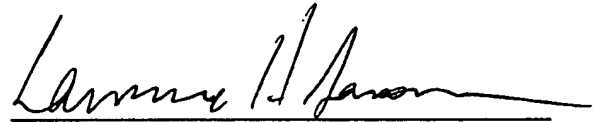
determining whether the incoming codewords are close enough to the expected codewords that a training sequence between the originating modem and answering modem could be shortened.

Respectfully submitted,

**McDONNELL BOEHNEN
HULBERT & BERGHOFF**

Dated: June 14, 2002   By: _Lawrence H. Aaronson_

Lawrence H. Aaronson
Reg. No. 35,818